

Name of school	Agrupamento de Escolas de Sátão
Theme of the lesson	Mathematics 10th grade Plane Analytical Geometry
Pupils' age range	15 - 17
Timeline	3 rd January to 3 rd February 2017
Objectives	<ol style="list-style-type: none"> 1. Analytically define elementary sets of plane points 2. Perform operations with vectors 3. Perform operations with coordinates of vectors 4. Learn the properties of straight-line vectors 5. Solve mathematical problems
Methods	<ol style="list-style-type: none"> 1. Teacher (T) creates GeoGebra files containing instructions and tasks that will allow students to learn the contents through discovery. 2. T provides moments of interaction among the students, instilling in them the desire to discover and explore the activities, encouraging them to observe, to reflect, to rationalize, to make conjectures and to communicate. 3. Students apply the results obtained with the resolution of activities proposed in their Math handbook. 4. T creates questions on Plickers app to assess pupils' acquisition of the contents covered.
Materials	<ul style="list-style-type: none"> • Computers, tablets or smartphones; • Students' book; • Graphic calculator
Used Apps	<ul style="list-style-type: none"> • GeoGebra, app GeoGebra • <i>Plickers</i>
Assessment	Written test Oral questionnaire Group work